



SEQUENCE LISTING

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<120> UMLR POLYPEPTIDES

<130> 99-75

<140> 09/695,369

<141> 2000-10-23

<150> 60/160, 880

<151> 1999-10-22

<150> 60/163, 215

<151> 1999-11-02

<150> 60/218,769

<151> 2000-07-17

<150> 60/222,221

<151> 2000-08-01

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<213> Homo sapiens

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Met Asp Cys Gln	
1	
gaa aat gag tac tgg gac caa tgg gga cgg tgt gtc acc tgc caa cgg	163
Glu Asn Glu Tyr Trp Asp Gln Trp Gly Arg Cys Val Thr Cys Gln Arg	
5 10 15 20	
tgt ggt cct gga cag gag cta tcc aag gat tgt ggt tat gga gag ggt	211
Cys Gly Pro Gly Gln Glu Leu Ser Lys Asp Cys Gly Tyr Gly Glu Gly	
25 30 35	
gga gat gcc tac tgc aca gcc tgc cct cct cgc agg tac aaa agc agc	259
Gly Asp Ala Tyr Cys Thr Ala Cys Pro Pro Arg Arg Tyr Lys Ser Ser	
40 45 50	
tgg ggc cac cac aaa tgt cag agt tgc atc acc tgt gct gtc atc aat	307
Trp Gly His His Lys Cys Gln Ser Cys Ile Thr Cys Ala Val Ile Asn	
55 60 65	
cgt gtt cag aag gtc aac tgc aca gct acc tct aat gct gtc tgt ggg	355
Arg Val Gln Lys Val Asn Cys Thr Ala Thr Ser Asn Ala Val Cys Gly	
70 75 80	
gac tgt ttg ccc agg ttc tac cga aag aca cgc att gga ggc ctg cag	403
Asp Cys Leu Pro Arg Phe Tyr Arg Lys Thr Arg Ile Gly Gly Leu Gln	
85 90 95 100	
gac caa gag tgc atc ccg tgc acg aag cag acc ccc acc tct gag gtt	451
Asp Gln Glu Cys Ile Pro Cys Thr Lys Gln Thr Pro Thr Ser Glu Val	
105 110 115	
caa tgt gcc ttc cag ttg agc tta gtg gag gca gat gca ccc aca gtg	499
Gln Cys Ala Phe Gln Leu Ser Leu Val Glu Ala Asp Ala Pro Thr Val	
120 125 130	
ccc cct cag gag gcc aca ctt gtt gca ctg gtg agc agc ctg cta gtg	547
Pro Pro Gln Glu Ala Thr Leu Val Ala Leu Val Ser Ser Leu Leu Val	
135 140 145	

gtg ttt acc ctg gcc ttc ctg ggg ctc ttc ttc ctc tac tgc aag cag 595
 Val Phe Thr Leu Ala Phe Leu Gly Leu Phe Phe Leu Tyr Cys Lys Gln
 150 155 160

ttc ttc aac aga cat tgc cag cgt gga ggt ttg ctg cag ttt gag gct 643
 Phe Phe Asn Arg His Cys Gln Arg Gly Gly Leu Leu Gln Phe Glu Ala
 165 170 175 180

gat aaa aca gca aag gag gaa tct ctc ttc ccc gtg cca ccc agc aag 691
 Asp Lys Thr Ala Lys Glu Glu Ser Leu Phe Pro Val Pro Pro Ser Lys
 185 190 195

gag acc agt gct gag tcc caa gag tcc ttt acc atg gcc tcc tgc acc 739
 Glu Thr Ser Ala Glu Ser Gln Glu Ser Phe Thr Met Ala Ser Cys Thr
 200 205 210

tca gag agc cac tcc cac tgg gtc cac agc ccc atc gaa tgc aca gag 787
 Ser Glu Ser His Ser His Trp Val His Ser Pro Ile Glu Cys Thr Glu
 215 220 225

ctg gac ctg caa aag ttt tcc agc tct gcc tcc tat act gga gct gag 835
 Leu Asp Leu Gln Lys Phe Ser Ser Ser Ala Ser Tyr Thr Gly Ala Glu
 230 235 240

acc ttg ggg gga aac aca gtc gaa agc act gga gac agg ctg gag ctc 883
 Thr Leu Gly Gly Asn Thr Val Glu Ser Thr Gly Asp Arg Leu Glu Leu
 245 250 255 260

aat gtg ccc ttt gaa gtt ccc agc cct taa ctctaagag gtctcttggg 933
 Asn Val Pro Phe Glu Val Pro Ser Pro *
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cccctggcag ccttgcccag ttgttctctc tggactctgt tcctatacca caacagcagc 993
 aggggcctga aatgtgatgt ccacaagagc taatacccta cagatggggc atatcctatc 1053
 ccatcccacc agaggattga ttctccattt cacaaggact gatctggagc atttcttgct 1113
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<213> Homo sapiens

<400> 2

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<223> n = A,T,C or G

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tgyacngcnt	gyccnccnmg	nmgntayaar	wsnwsntggg	gncaycayaa	rtgycarwsn	180
tgyathacnt	gygcngtnat	haaymgngtn	caraargtna	aytgyacngc	nacnwsnaay	240
gcngtntgyg	gngaytgyyt	nccnmgntty	taymgnaara	cnmgathgg	nggnytnear	300
gaycargart	gyathccntg	yacnaarcar	acnccnacnw	sngargtnca	rtgygcntty	360
carytnwsny	tngtngargc	ngaygcncn	acngtncnc	cncargargc	nacnytnngtn	420
gcnytnngtnw	snwsnytnyt	ngtngtntty	acnytnngnt	tyytnngny	nttyttyytn	480
taytgyaarc	arttyttyaa	ymgncaytgy	carmgnggng	gnytnytnca	rttygargcn	540
gayaaracng	cnaargarga	rwsnytnntty	ccngtncnc	cnwsnaarga	racnwsngcn	600
garwsncarg	arwsnttyac	natggcnwsn	tgyacnwsng	arwsncayws	ncaytgggtn	660
caywsnccna	thgartgyac	ngarytnngay	ytncaraart	tywsnwsnws	ngcnwsntay	720
acnggngcng	aracnytnng	nggnaayacn	gtngarwsna	cnggngaymg	nytnngarytn	780
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<213> Artificial Sequence

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<223> Pseudo repeat motif #1

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<222> (1)...(1)

<223> Xaa is any amino acid residue

<221> VARIANT

<222> (3)...(12)

<223> Each Xaa is independently any amino acid residue

<221> VARIANT

<222> (13)...(16)

<223> Each Xaa is independently any amino acid residue
or not present

<221> VARIANT

<222> (19)...(20)

<223> Each Xaa is independently any amino acid residue

<221> VARIANT

<222> (22)...(26)

<223> Each Xaa is independently any amino acid residue

<221> VARIANT

<222> (27)...(30)

<223> Each Xaa is independently any amino acid residue
or not present

<221> VARIANT

<222> (32)...(37)

<223> Each Xaa is independently any amino acid residue
or not present

<221> VARIANT

<222> (38)...(39)

<223> Each Xaa is independently any amino acid residue
or not present

<221> VARIANT

<222> (41)...(41)

<223> Xaa is any amino acid residue

<400> 4

Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
1			5					10						15		
Cys	Cys	Xaa	Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Cys	Xaa	
			20					25						30		
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Cys	Xaa								
			35					40								

<210> 5

<211> 45

<212> PRT

<213> Artificial Sequence

<220>

<223> Pseudo repeat motif #2

<221> VARIANT

<222> (1)...(1)

<223> Xaa is any amino acid residue

<221> VARIANT

<222> (3)...(15)

<223> Each Xaa is independently any amino acid residue

<221> VARIANT

<222> (16)...(17)

<223> Each Xaa is independently any amino acid residue
or not present

<221> VARIANT

<222> (19)...(20)

<223> Each Xaa is independently any amino acid residue

<221> VARIANT

<222> (22)...(23)

<223> Each Xaa is independently any amino acid residue

<221> VARIANT

<222> (24)...(24)

<223> Each Xaa is independently any amino acid residue
or not present

<221> VARIANT

<222> (26)...(33)

<223> Each Xaa is independently any amino acid residue

<221> VARIANT

<222> (34)...(36)

<223> Each Xaa is independently any amino acid residue
or not present

<221> VARIANT

<222> (38)...(44)

<223> Each Xaa is independently any amino acid residue

<400> 5

Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
1			5					10					15		
Xaa	Cys	Xaa	Xaa	Cys	Xaa	Xaa	Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
			20					25					30		

Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys
 35 40 45

<210> 6

<211> 49

<212> PRT

<213> Artificial Sequence

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<223> Pseudo repeat motif #3

<221> VARIANT

<222> (1)...(1)

<223> Xaa is any amino acid residue

<221> VARIANT

<222> (3)...(7)

<223> Each Xaa is independently any amino acid residue

<221> VARIANT

<222> (8)...(8)

<223> Xaa is any amino acid residue or not present

<221> VARIANT

<222> (9)...(14)

<223> Each Xaa is independently any amino acid residue

<221> VARIANT

<222> (15)...(18)

<223> Each Xaa is independently any amino acid residue
 or not present

<221> VARIANT

<222> (20)...(21)

<223> Each Xaa is independently any amino acid residue

<221> VARIANT

<222> (23)...(24)

<223> Each Xaa is independently any amino acid residue

<221> VARIANT

<222> (25)...(29)

<223> Each Xaa is independently any amino acid residue

or not present

<221> VARIANT

<222> (31)...(38)

<223> Each Xaa is independently any amino acid residue

<221> VARIANT

<222> (39)...(39)

<223> Xaa is any amino acid residue or not present

<221> VARIANT

<222> (41)...(47)

<223> Each Xaa is independently any amino acid residue

<221> VARIANT

<222> (49)...(49)

<223> Xaa is any amino acid residue or not present

<400> 6

Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
1			5				10					15			
Xaa	Xaa	Cys	Xaa	Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Cys	Xaa	Xaa
			20				25					30			
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Cys
			35				40					45			
Xaa															

<210> 7

<211> 48

<212> PRT

<213> Artificial Sequence

<220>

<223> Pseudo repeat motif #3 alternative motif

<221> VARIANT

<222> (1)...(1)

<223> Xaa is any amino acid residue

<221> VARIANT

<222> (3)...(7)

<223> Each Xaa is independently any amino acid residue

<221> VARIANT
<222> (8)...(8)
<223> Xaa is independently any amino acid residue or not
present

<221> VARIANT
<222> (10)...(13)
<223> Each Xaa is independently any amino acid residue

<221> VARIANT
<222> (14)...(18)
<223> Each Xaa is independently any amino acid residue
or not present

<221> VARIANT
<222> (20)...(21)
<223> Each Xaa is independently any amino acid residue

<221> VARIANT
<222> (23)...(24)
<223> Each Xaa is independently any amino acid residue

<221> VARIANT
<222> (25)...(29)
<223> Each Xaa is independently any amino acid residue
or not present

<221> VARIANT
<222> (31)...(40)
<223> Each Xaa is independently any amino acid residue

<221> VARIANT
<222> (41)...(46)
<223> Each Xaa is independently any amino acid residue
or not present

<221> VARIANT
<222> (48)...(48)
<223> Xaa is any amino acid residue

<400> 7

Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
1				5					10						15	
Xaa	Xaa	Cys	Xaa	Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Cys	Xaa	Xaa
			20					25						30		
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Cys	Xaa
			35					40						45		

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 <211> 43
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<220>
 <223> Pseudo repeat motif #4

<221> VARIANT
 <222> (1)...(1)
 <223> Xaa is any amino acid residue

<221> VARIANT
 <222> (3)...(12)
 <223> Each Xaa is independently any amino acid residue

<221> VARIANT
 <222> (13)...(16)
 <223> Each Xaa is independently any amino acid residue
 or not present

<221> VARIANT
 <222> (18)...(19)
 <223> Each Xaa is independently any amino acid residue

<221> VARIANT
 <222> (21)...(22)
 <223> Each Xaa is independently any amino acid residue

<221> VARIANT
 <222> (24)...(27)
 <223> Each Xaa is independently any amino acid residue

<221> VARIANT
 <222> (28)...(33)
 <223> Each Xaa is independently any amino acid residue

or not present

<221> VARIANT

<222> (35)...(37)

<223> Each Xaa is independently any amino acid residue

<221> VARIANT

<222> (38)...(41)

<223> Each Xaa is independently any amino acid residue
or not present

<221> VARIANT

<222> (43)...(43)

<223> Each Xaa is independently any amino acid residue

<400> 8

Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
1			5				10					15				
Cys	Xaa	Xaa	Cys	Xaa	Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
			20				25					30				
Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Cys	Xaa						
			35				40									

<210> 9

<211> 43

<212> PRT

<213> Artificial Sequence

<220>

<223> Pseudo repeat motif #4 alternative motif

<221> VARIANT

<222> (1)...(1)

<223> Xaa is any amino acid residue

<221> VARIANT

<222> (3)...(12)

<223> Each Xaa is independently any amino acid residue

<221> VARIANT

<222> (13)...(16)

<223> Each Xaa is independently any amino acid residue
or not present

<221> VARIANT
 <222> (18)...(22)
 <223> Each Xaa is independently any amino acid residue

<221> VARIANT
 <222> (24)...(27)
 <223> Each Xaa is independently any amino acid residue

<221> VARIANT
 <222> (28)...(33)
 <223> Each Xaa is independently any amino acid residue
 or not present

<221> VARIANT
 <222> (34)...(37)
 <223> Each Xaa is independently any amino acid residue

<221> VARIANT
 <222> (38)...(41)
 <223> Each Xaa is independently any amino acid residue
 or not present

<221> VARIANT
 <222> (43)...(43)
 <223> Xaa is any amino acid residue

<400> 9

Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
1			5					10					15		
Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
			20					25					30		
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Cys	Xaa					
			35					40							

<210> 10
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<220>
 <223> oligonucleotide primer ZC25352

<400> 10
ccttgcccag ttgttctc 18

<210> 11
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide primer ZC25353

<400> 11
tctggtggga tgggatag 18

<210> 12
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide primer ZC25364

<400> 12
acctgtgctg tcataaatcg tgttca 26

<210> 13
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide primer ZC25365

<400> 13
cccccaaggc ctcagctcca gtat 24

<210> 14
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide primer ZC25352

<400> 14
ccttgcccag ttgttctc 18

<210> 15
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide primer ZC25353

<400> 15
tctggtggga tgggatag 18

<210> 16
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Protein

<400> 16
Glu Tyr Met Pro Met Glu
1 5

<210> 17
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide primer ZC25598

<400> 17
gcg gatccga ttgccaagaa atgagtact ggg 33

<210> 18
<211> 37
<212> DNA
<213> Artificial Sequence

<220>

<223> oligonucleotide primer ZC25596

<400> 18

gcagatctgg gctccactgt ggggtgcatct gcctcca

37

<210> 19

<211> 108

<212> DNA

<213> Homo sapiens

<220>

<223> tPA leader

<400> 19

atggatgcaa tgaagagagg gctctgctgt gtgctgctgc tgtgtggcgc cgtcttcggt
tcgctcagcc aggaaatcca tgccgagttg agacgcttcc gtagatcc

60

108

<210> 20

<211> 693

<212> DNA

<213> Artificial Sequence

<220>

<223> Fc4 tag

<400> 20

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ccgtcagtct	tcctcttccc	cccaaaaccc	aaggacaccc	tcatgatctc	ccggaccctt	120
gaggtcacat	gcgtgggtgt	ggacgtgagc	cacgaagacc	ctgaggtcaa	gttcaactgg	180
tacgtggacg	gcgtggaggt	gcataatgcc	aagacaaagc	cgcgaggagg	gcagtacaac	240
agcacgtacc	gtgtggtcag	cgctctcacc	gtcctgcacc	aggactggct	gaatggcaag	300
gagtacaagt	gcaaggtctc	caacaaagcc	ctcccatcct	ccatcgagaa	aaccatctcc	360
aaagccaaag	ggcagccccg	agaaccacag	gtgtacaccc	tgcccccatc	ccgggatgag	420
ctgaccaaga	accaggtcag	cctgacctgc	ctgggtcaaag	gcttctatcc	cagcgacatc	480
gccgtggagt	gggagagcaa	tgggcagccg	gagaacaact	acaagaccac	gcctcccgtg	540
ctggactccg	acggctcctt	cttcctctac	agcaagctca	ccgtggacaa	gagcaggtgg	600
cagcagggga	acgtcttctc	atgctccgtg	atgcatgagg	ctctgcacaa	ccactacacg	660
cagaagagcc	tctccctgtc	tccgggtaaa	ttaa			693

<210> 21

<211> 534

<212> DNA

<213> Artificial sequence

<220>

<223> Polynucleotide Construct

<400> 21

atggatgcaa	tgaagagagg	gctctgctgt	gtgctgctgc	tgtgtggcgc	cgtcttcggt	60
tcgctcagcc	aggaaatcca	tgccgagttg	agacgcttcc	gtagatccga	ttgccaagaa	120
aatgagtact	gggaccaatg	gggacggtgt	gtcacctgcc	aacgggtgtg	tcctggacag	180
gagctatcca	aggattgtgg	ttatggagag	ggtggagatg	cctactgcac	agcctgccct	240
cctcgcaggt	acaaaagcag	ctggggccac	cacaaatgtc	agagttgcat	cacctgtgct	300
gtcatcaatc	gtgttcagaa	ggtcaactgc	acagctacct	ctaattgctgt	ctgtggggac	360
tgtttgccca	ggttctaccg	aaagacacgc	attggaggcc	tgcaggacca	agagtgcac	420
ccgtgcacga	agcagacccc	cacctctgag	gttcaatgtg	ccttccagtt	gagcttagtg	480
gaggcagatg	caccacagt	ggagcccaga	tctgaatata	tgcccatgga	ataa	534

<210> 22

<211> 1200

<212> DNA

<213> Artificial Sequence

<220>

<223> construct

<400> 22

atggatgcaa	tgaagagagg	gctctgctgt	gtgctgctgc	tgtgtggcgc	cgtcttcggt	60
tcgctcagcc	aggaaatcca	tgccgagttg	agacgcttcc	gtagatccga	ttgccaagaa	120
aatgagtact	gggaccaatg	gggacggtgt	gtcacctgcc	aacgggtgtg	tcctggacag	180
gagctatcca	aggattgtgg	ttatggagag	ggtggagatg	cctactgcac	agcctgccct	240
cctcgcaggt	acaaaagcag	ctggggccac	cacaaatgtc	agagttgcat	cacctgtgct	300
gtcatcaatc	gtgttcagaa	ggtcaactgc	acagctacct	ctaattgctgt	ctgtggggac	360
tgtttgccca	ggttctaccg	aaagacacgc	attggaggcc	tgcaggacca	agagtgcac	420
ccgtgcacga	agcagacccc	cacctctgag	gttcaatgtg	ccttccagtt	gagcttagtg	480
gaggcagatg	caccacagt	ggagcccaga	tcttcagaca	aaactcacac	atgcccaccg	540
tgcccagcac	ctgaagccga	gggggcaccg	tcagtcttcc	tcttcccccc	aaaaccaag	600
gacaccctca	tgatctccc	gaccctgag	gtcacatgcg	tgggtggtgga	cgtgagccac	660
gaagaccctg	aggtcaagtt	caactggtac	gtggacggcg	tggaggtgca	taatgccaag	720
acaaagccgc	gggaggagca	gtacaacagc	acgtaccgtg	tggtcagcgt	cctcaccgtc	780
ctgcaccagg	actggctgaa	tggcaaggag	tacaagtgca	aggtctccaa	caaagccctc	840
ccatcctcca	tcgagaaaac	catctccaaa	gccaaagggc	agccccgaga	accacaggtg	900
tacaccctgc	ccccatccc	ggatgagctg	accaagaacc	aggtcagcct	gacctgcctg	960
gtcaaaggct	tctatcccag	cgacatcgcc	gtggagtggg	agagcaatgg	gcagccggag	1020

aacaactaca agaccacgcc tcccgtgctg gactccgacg gctccttctt cctctacagc 1080
aagctcaccg tggacaagag caggtggcag caggggaacg tcttctcatg ctccgtgatg 1140
catgaggctc tgcacaacca ctacacgcag aagagcctct ccctgtctcc gggtaaataa 1200

<210> 23
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide ZC26463

<400> 23
atgcattaac cctcactaaa gggccttcct ggggctcttc ttcctct 47

<210> 24
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide ZC26464

<400> 24
taatacgact cactataggg aggggcccct gctgctgttg tggat 46

<210> 25
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide ZC26470

<400> 25
atgcattaac cctcactaaa gggacctgtg ctgtcatcaa tcgtgttca 49

<210> 26
<211> 47
<212> DNA
<213> Artificial Sequence

<223> Oligonucleotide ZC26471

taatacgact cactataggg aggcccccaa ggtctcagct ccagtat

47

<213> Homo sapiens

Met 1	Asp	Cys	Gln	Glu 5	Asn	Glu	Tyr	Trp	Asp 10	Gln	Trp	Gly	Arg	Cys 15	Val
Thr	Cys	Gln	Arg	Cys	Gly	Pro	Gly	Gln	Glu	Leu	Ser	Lys	Asp 20	Cys 25	Gly
Tyr	Gly	Glu	Gly	Gly	Asp	Ala	Tyr	Cys	Thr	Ala	Cys	Pro	Pro	Arg	Arg
Tyr	Lys	Ser	Ser	Trp	Gly	His	His	Lys	Cys	Gln	Ser	Cys	Ile	Thr	Cys
Ala	Val	Ile	Asn	Arg	Val	Gln	Lys	Val	Asn	Cys	Thr	Ala	Thr	Ser	Asn
Ala	Val	Cys	Gly	Asp	Cys	Leu	Pro	Arg	Phe	Tyr	Arg	Lys	Thr	Arg	Ile
Gly	Gly	Leu	Gln	Asp	Gln	Glu	Cys	Ile	Pro	Cys	Thr	Lys	Gln	Thr	Pro
Thr	Ser	Glu	Val	Gln	Cys	Ala	Phe	Gln	Leu	Ser	Leu	Val	Glu	Ala	Asp
Ala	Pro	Thr	Val	Pro	Pro	Gln	Glu	Ala	Thr	Leu	Val	Ala	Leu	Val	Ser
Ser	Leu	Leu	Val	Val	Phe	Thr	Leu	Ala	Phe	Leu	Gly	Leu	Phe	Phe	Leu
Tyr	Cys	Lys	Gln	Phe	Phe	Asn	Arg	His	Cys	Gln	Arg	Gly	Gly	Leu	Leu
Gln	Phe	Glu	Ala	Asp	Lys	Thr	Ala	Lys	Glu	Glu	Ser	Leu	Phe	Pro	Val
Pro	Pro	Ser	Lys	Glu	Thr	Ser	Ala	Glu	Ser	Gln	Val	Ser	Glu	Asn	Ile
Phe	Gln	Thr	Gln	Pro	Leu	Asn	Pro	Ile	Leu	Glu	Asp	Asp	Cys	Ser	Ser

Thr Ser Gly Phe Pro Thr Gln Glu Ser Phe Thr Met Ala Ser Cys Thr
 225 230 235 240
 Ser Glu Ser His Ser His Trp Val His Ser Pro Ile Glu Cys Thr Glu
 245 250 255
 Leu Asp Leu Gln Lys Phe Ser Ser Ser Ala Ser Tyr Thr Gly Ala Glu
 260 265 270
 Thr Leu Gly Gly Asn Thr Val Glu Ser Thr Gly Asp Arg Leu Glu Leu
 275 280 285
 Asn Val Pro Phe Glu Val Pro Ser Pro
 290 295

<210> 28
 <211> 891
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> degenerate sequence

<221> misc_feature
 <222> (1)...(891)
 <223> n = A,T,C or G

<400> 28

atggaytgyc	argaraayga	rtaytgggay	cartgggggm	gntgygtnac	ntgycarmgn	60
tgyggncng	gncargaryt	nwsnaargay	tgyggntayg	gngarggngg	ngaygcntay	120
tgyacngcnt	gyccnccnmg	nmgntayaar	wsnwsntggg	gncaycayaa	rtgycarwsn	180
tgyathacnt	gygcngtnat	haaymgngtn	caraargtna	aytgyacngc	nacnwsnaay	240
gcngtntgyg	gngaytgyyt	nccnmgntty	taymgnaara	cnmgnathgg	nggnytnear	300
gaycargart	gyathccntg	yacnaarcac	acnccnacnw	sngargtnca	rtgygcntty	360
carytnwsny	tngtngargc	ngaygcncn	acngtncnc	cncargargc	nacnytnngn	420
gcnytnngtnw	snwsnytnyt	ngtngtntty	acnytnngnt	tytnggny	nttyttytn	480
taytgyaarc	arttyttyaa	ymgncaytgy	carmgngngg	gnytnytnc	rttygargcn	540
gayaaracng	cnaargarga	rwsnytnntty	ccngtncnc	cnwsnaarga	racnwsngcn	600
garwsncarg	tnwsngaraa	yathttycar	acncarccny	tnaayccnat	hytnngargay	660
gaytgywsnw	snacnwsngg	nttyccnacn	cargarwsnt	tyacnatggc	nwsntgyacn	720
wsngarwsnc	aywsncaytg	ggtncaywsn	ccnathgart	gyacngaryt	ngayytncar	780
aarttywsnw	snwsngcnws	ntayacnggn	gcngaracny	tnggnggnaa	yacngtngar	840
wsnacngngg	aymgnytnga	rytnaaygtn	ccnttygarg	tnccnwsncc	n	891

<210> 29
 <211> 267
 <212> PRT

<400> 29

<210> 30

<211> 801

<212> DNA

<213> Artificial Sequence

<220>

<223> degenerate sequence

<221> misc_feature

<222> (1)...(801)

<223> n = A,T,C or G

<400> 30

atggaytgyc	argaraayga	rtaytgggag	cartgggggm	gntgygtnac	ntgycarmgn	60
tgyggncng	gncargaryt	nwsnaargay	tgyggntayg	gngarggngg	ngaygcntay	120
tgyacngent	gyccnccnmg	nmgntayaar	wsnwsntggg	gncaycayaa	rtgycarwsn	180
tgyathacnt	gygcngtnat	haaymgngtn	caraargtna	aytgyacngc	nacnwsnaay	240
gcngtntgyg	gngaytgyyt	nccnmgntty	taymgnaara	cnmgathgg	nggnytnear	300
gaycargart	gyathccntg	yacnaarcar	acnccnacnw	sngargtnca	rtgygcntty	360
carytnwsny	tngtngargc	ngaygcncn	acngtncnc	cncargargc	nacnytnngn	420
gcnytnggng	gnytnytnc	rttygargcn	gayaaracng	cnaargarga	rwsnytnntty	480
ccngtncnc	cnwsnaarga	racnwsngcn	garwsncarg	tnwsngaraa	yathttycar	540
acncarcny	tnaayccnat	hytnngargay	gaytgywsnw	snacnwsngg	nttyccnacn	600
cargarwsnt	tyacnatggc	nwsntgyacn	wsngarwsnc	aywsncaytg	ggtncayswn	660
ccnathgart	gyacngaryt	ngayytncar	aarttywsnw	snwsngcnws	ntayacnggn	720
gcngaracny	tnggnggnaa	yacngtngar	wsnacnggng	aymgnytna	rytnaaygtn	780
ccnttygarg	tnccnwsncc	n				801

<210> 31

<211> 529

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(529)

<223> n = A,T,C or G

<400> 31

ggattcnatn	nctgaggntg	natggcnttc	nagttnwgas	tkagtggagg	cagatgcasc	60
cacagtgcc	gcctcaggag	gycacacttg	ttgcrmtggt	gagcagcstg	ctagtgggtgt	120
ttrccctggc	cttcctgggg	ctcttcttcc	tcwacygcaa	gcagttcttc	aacagacatt	180
gycagcsng	gaggtttgct	gcagtttgag	gctgatraaa	cagcaaagga	ggaatctstm	240
ttycycgtgc	cacccagcaa	ggagaccagt	gctgagtccc	aagtgagtga	gaacatyttt	300
cakacccagm	cacttaaccc	tatcctyrag	gacgactgca	rctcgactag	tggyttcccc	360
acacaggart	mctttaccat	ggcctyctgc	acctyagaga	gccactscca	ctgggwccac	420
arcccatcg	aatgcacaka	gctggacctg	caaaagtttt	ccagctctgc	ctcctatact	480
ggagctgara	ccttgggggg	aaacacagnc	aaaagcactg	ganacaggg		529

<210> 32
 <211> 401
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(401)
 <223> n = A,T,C or G

<400> 32

cagttgagct	tagtggaggc	agatgcaccc	acagtgcgcc	ctcaggaggc	cacacttggt	60
gsactggagg	tttgctgcag	tttgaggctg	ataaaacagc	aaaggaggaa	tctctcttns	120
ccgtgccacc	cagcaaggag	accagtgctg	agtcccaagt	gagtgagaac	atctttcaga	180
cccagccact	taaccctatc	ctcgaggacg	actgcagctc	gactagtggc	ttccccacac	240
aggagtcctt	taccatggcc	tcctgcacct	cagagagcca	ctcccactgg	gtccacagcc	300
ccatcgaatg	cacagagctg	gacctgcaaa	agttttccag	ctctgcctcc	tatactggag	360
ctgagacctt	ggggggaaac	acagtcgaaa	gcactggaga	c		401

<210> 33
 <211> 528
 <212> DNA
 <213> Homo sapiens

<400> 33

ctctgagggt	caatgtgcct	tccagttgag	cttagtggag	gcagatgcac	ccacagtgcc	60
ccctcaggag	gccacacttg	ttgcactggg	gagcagcctg	ctagtgggtg	ttaccctggc	120
cttcctgggg	ctctttcttc	tctactgcaa	gcagttcttc	aacagacatt	gccagcgtgt	180
tgcaggaggt	ttgctgcagt	ttgaggctga	taaaacagca	aaggagggaat	ctctcttccc	240
cgtgccaccc	agcaaggaga	ccagtgcctga	gtcccaagtg	agtgagaaca	tctttcagac	300
ccagccactt	aaccctatcc	tcgaggacga	ctgcagctcg	actagtggct	tccccacaca	360
ggagtccttt	accatggcct	cctgcacctc	agagagccac	tcccactggg	tccacagccc	420
catcgaatgc	acagagctgg	acctgcacaaa	gttttccagc	tctgcctcct	atactggagc	480
tgagaccttg	gggggaaaca	cagtcgaaag	cactggagac	aggctgga		528

<210> 34
 <211> 175
 <212> PRT
 <213> Homo sapiens

<400> 34

Ser	Glu	Val	Gln	Cys	Ala	Phe	Gln	Leu	Ser	Leu	Val	Glu	Ala	Asp	Ala
1				5					10					15	
Pro	Thr	Val	Pro	Pro	Gln	Glu	Ala	Thr	Leu	Val	Ala	Leu	Val	Ser	Ser
			20					25					30		
Leu	Leu	Val	Val	Phe	Thr	Leu	Ala	Phe	Leu	Gly	Leu	Phe	Phe	Leu	Tyr
		35					40					45			
Cys	Lys	Gln	Phe	Phe	Asn	Arg	His	Cys	Gln	Arg	Val	Ala	Gly	Gly	Leu
	50					55					60				
Leu	Gln	Phe	Glu	Ala	Asp	Lys	Thr	Ala	Lys	Glu	Glu	Ser	Leu	Phe	Pro
65					70				75						80
Val	Pro	Pro	Ser	Lys	Glu	Thr	Ser	Ala	Glu	Ser	Gln	Val	Ser	Glu	Asn
				85					90					95	
Ile	Phe	Gln	Thr	Gln	Pro	Leu	Asn	Pro	Ile	Leu	Glu	Asp	Asp	Cys	Ser
			100					105					110		
Ser	Thr	Ser	Gly	Phe	Pro	Thr	Gln	Glu	Ser	Phe	Thr	Met	Ala	Ser	Cys
		115					120					125			
Thr	Ser	Glu	Ser	His	Ser	His	Trp	Val	His	Ser	Pro	Ile	Glu	Cys	Thr
		130				135					140				
Glu	Leu	Asp	Leu	Gln	Lys	Phe	Ser	Ser	Ser	Ala	Ser	Tyr	Thr	Gly	Ala
145					150					155					160
Glu	Thr	Leu	Gly	Gly	Asn	Thr	Val	Glu	Ser	Thr	Gly	Asp	Arg	Leu	
				165					170					175	

<210> 35
 <211> 299
 <212> PRT
 <213> Homo sapiens

Met	Asp	Cys	Gln	Glu	Asn	Glu	Tyr	Trp	Asp	Gln	Trp	Gly	Arg	Cys	Val
1				5					10					15	
Thr	Cys	Gln	Arg	Cys	Gly	Pro	Gly	Gln	Glu	Leu	Ser	Lys	Asp	Cys	Gly
			20					25					30		
Tyr	Gly	Glu	Gly	Gly	Asp	Ala	Tyr	Cys	Thr	Ala	Cys	Pro	Pro	Arg	Arg
		35					40					45			
Tyr	Lys	Ser	Ser	Trp	Gly	His	His	Lys	Cys	Gln	Ser	Cys	Ile	Thr	Cys
	50					55					60				
Ala	Val	Ile	Asn	Arg	Val	Gln	Lys	Val	Asn	Cys	Thr	Ala	Thr	Ser	Asn
65					70					75					80
Ala	Val	Cys	Gly	Asp	Cys	Leu	Pro	Arg	Phe	Tyr	Arg	Lys	Thr	Arg	Ile
				85					90					95	
Gly	Gly	Leu	Gln	Asp	Gln	Glu	Cys	Ile	Pro	Cys	Thr	Lys	Gln	Thr	Pro
			100					105					110		

Thr	Ser	Glu	Val	Gln	Cys	Ala	Phe	Gln	Leu	Ser	Leu	Val	Glu	Ala	Asp
		115					120					125			
Ala	Pro	Thr	Val	Pro	Pro	Gln	Glu	Ala	Thr	Leu	Val	Ala	Leu	Val	Ser
	130					135					140				
Ser	Leu	Leu	Val	Val	Phe	Thr	Leu	Ala	Phe	Leu	Gly	Leu	Phe	Phe	Leu
145					150					155					160
Tyr	Cys	Lys	Gln	Phe	Phe	Asn	Arg	His	Cys	Gln	Arg	Val	Ala	Gly	Gly
			165						170					175	
Leu	Leu	Gln	Phe	Glu	Ala	Asp	Lys	Thr	Ala	Lys	Glu	Glu	Ser	Leu	Phe
		180						185					190		
Pro	Val	Pro	Pro	Ser	Lys	Glu	Thr	Ser	Ala	Glu	Ser	Gln	Val	Ser	Glu
	195						200					205			
Asn	Ile	Phe	Gln	Thr	Gln	Pro	Leu	Asn	Pro	Ile	Leu	Glu	Asp	Asp	Cys
210						215					220				
Ser	Ser	Thr	Ser	Gly	Phe	Pro	Thr	Gln	Glu	Ser	Phe	Thr	Met	Ala	Ser
225				230						235					240
Cys	Thr	Ser	Glu	Ser	His	Ser	His	Trp	Val	His	Ser	Pro	Ile	Glu	Cys
			245					250						255	
Thr	Glu	Leu	Asp	Leu	Gln	Lys	Phe	Ser	Ser	Ser	Ala	Ser	Tyr	Thr	Gly
		260					265						270		
Ala	Glu	Thr	Leu	Gly	Gly	Asn	Thr	Val	Glu	Ser	Thr	Gly	Asp	Arg	Leu
	275					280						285			
Glu	Leu	Asn	Val	Pro	Phe	Glu	Val	Pro	Ser	Pro					
290						295									

<210> 36
 <211> 431
 <212> DNA
 <213> Homo sapiens

<400> 36	
ctc tga ggt tca atg tgc ctt cca gtt gag ctt agt gga ggc aga tgc	48
acc cac agt gcc ccc tca gga ggc cac act tgt tgc act gga ggt ttg	96
ctg cag ttt gag gct gat aaa aca gca aag gag gaa tct ctc ttc ccc	144
gtg cca ccc agc aag gag acc agt gct gag tcc caa gtg agt gag aac	192
atc ttt cag acc cag cca ctt aac cct atc ctc gag gac gac tgc agc	240
tcg act agt ggc ttc ccc aca cag gag tcc ttt acc atg gcc tcc tgc	288
acc tca gag agc cac tcc cac tgg gtc cac agc ccc atc gaa tgc aca	336
gag ctg gac ctg caa aag ttt tcc agc tct gcc tcc tat act gga gct	384
gag acc ttg ggg gga aac aca gtc gaa agc act gga gac agg ctg ga	431

<210> 37
 <211> 142

<212> PRT

<213> Homo sapiens

<400> 37

Leu	Gly	Ser	Met	Cys	Leu	Pro	Val	Glu	Leu	Ser	Gly	Gly	Arg	Cys	Thr
1				5				10						15	
His	Ser	Ala	Pro	Ser	Gly	Gly	His	Thr	Cys	Cys	Thr	Gly	Gly	Leu	Leu
			20					25						30	
Gln	Phe	Glu	Ala	Asp	Lys	Thr	Ala	Lys	Glu	Glu	Ser	Leu	Phe	Pro	Val
		35					40					45			
Pro	Pro	Ser	Lys	Glu	Thr	Ser	Ala	Glu	Ser	Gln	Val	Ser	Glu	Asn	Ile
	50					55					60				
Phe	Gln	Thr	Gln	Pro	Leu	Asn	Pro	Ile	Leu	Glu	Asp	Asp	Cys	Ser	Ser
65					70					75					80
Thr	Ser	Gly	Phe	Pro	Thr	Gln	Glu	Ser	Phe	Thr	Met	Ala	Ser	Cys	Thr
				85					90					95	
Ser	Glu	Ser	His	Ser	His	Trp	Val	His	Ser	Pro	Ile	Glu	Cys	Thr	Glu
			100					105					110		
Leu	Asp	Leu	Gln	Lys	Phe	Ser	Ser	Ser	Ala	Ser	Tyr	Thr	Gly	Ala	Glu
		115					120					125			
Thr	Leu	Gly	Gly	Asn	Thr	Val	Glu	Ser	Thr	Gly	Asp	Arg	Leu		
	130					135					140				

<210> 38

<211> 173

<212> PRT

<213> Homo sapiens

<400> 38

Met	Asp	Cys	Gln	Glu	Asn	Glu	Tyr	Trp	Asp	Gln	Trp	Gly	Arg	Cys	Val
1				5				10						15	
Thr	Cys	Gln	Arg	Cys	Gly	Pro	Gly	Gln	Glu	Leu	Ser	Lys	Asp	Cys	Gly
			20					25						30	
Tyr	Gly	Glu	Gly	Gly	Asp	Ala	Tyr	Cys	Thr	Ala	Cys	Pro	Pro	Arg	Arg
		35					40					45			
Tyr	Lys	Ser	Ser	Trp	Gly	His	His	Lys	Cys	Gln	Ser	Cys	Ile	Thr	Cys
	50					55					60				
Ala	Val	Ile	Asn	Arg	Val	Gln	Lys	Val	Asn	Cys	Thr	Ala	Thr	Ser	Asn
65					70					75					80
Ala	Val	Cys	Gly	Asp	Cys	Leu	Pro	Arg	Phe	Tyr	Arg	Lys	Thr	Arg	Ile
				85					90					95	
Gly	Gly	Leu	Gln	Asp	Gln	Glu	Cys	Ile	Pro	Cys	Thr	Lys	Gln	Thr	Pro
			100					105					110		

Thr Ser Glu Val Gln Cys Ala Phe Gln Leu Ser Leu Val Glu Ala Asp
 115 120 125
 Ala Pro Thr Val Pro Pro Gln Glu Ala Thr Leu Val Ala Leu Glu Val
 130 135 140
 Cys Cys Ser Leu Arg Leu Ile Lys Gln Gln Arg Arg Asn Leu Ser Ser
 145 150 155 160
 Pro Cys His Pro Ala Arg Arg Pro Val Leu Ser Pro Lys
 165 170

<210> 39
 <211> 519
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> degenerate polynucleotide sequence

<221> misc_feature
 <222> (1)...(519)
 <223> n = A,T,C or G

<400> 39
 atggaytgyc argaraayga rtaytgggag cartgggggm gntgygtnac ntgycarmgn 60
 tgyggncng gncargaryt nwsnaargay tgyggntayg gngarggngg ngaygcntay 120
 tgyacngcnt gyccnccnmg nmgtayaar wsnwsntggg gncaycayaa rtgycarwsn 180
 tgyathacnt gygngtnat haaymgngtn caraargtna aytgyacngc nacnwsnaay 240
 gngtntgyg gngaytgyyt nccnmgtty taymgnaara cnmgathgg nggnytnear 300
 gaycargart gyathccntg yacnaarcar acnccnacw sngargtnca rtgygcntty 360
 carytnwsny tngtngargc ngaygcncn acngtnccnc cncargargc nacnytngt 420
 gnytnarg tntgytgyws nytnmgnytn athaarcarc armgmgnaa yytnwsnwsn 480
 cntgycayc cngcnmgng nccngtnytn wsncnaar 519

<210> 40
 <211> 47
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> oligonucleotide ZC26463

<400> 40
 atgcattaac cctcactaaa gggccttcct ggggctcttc ttcctct

<210> 41
 <211> 46
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Oligonucleotide sequence ZC 26464

<400> 41
 taatacgact cactataggg aggggccct gctgctgttg tggat 46

<210> 42
 <211> 49
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Oligonucleotide ZC24670

<400> 42
 atgcattaac cctcactaaa gggacctgtg ctgtcatcaa tcgtgttca 49

<210> 43
 <211> 47
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Oligonucleotide sequence ZC 26471

<400> 43
 taatacgact cactataggg agggcccca ggtctcagct ccagtat 47

<210> 44
 <211> 657
 <212> DNA
 <213> murine

<400> 44
 ggtggcatct ctcttccaat tggctgatt gttggagtga catcactggg tctgctgatg 60
 ttaggactgg tgaactgcat catcctggtg cagaggaaaa agaagccctc ctgcctacaa 120
 agagatgcca aggtgcctca tgtgcctgat gagaaatccc aggatgcagt aggccttgag 180

cagcagcacc	tgttgaccac	agcaccacagt	tccagcagca	gctccctaga	gagctcagcc	240
agcgctgggg	accgaagggc	gccccctggg	ggccatcccc	aagcaagagt	catggcgagg	300
gccaaggggt	ttcaggaggc	ccgtgccagc	tccaggattt	cagattcttc	ccacggaagc	360
cacgggaccc	acgtcaacgt	cacctgcac	gtgaacgtct	gtagcagctc	tgaccacagt	420
tctcagtgt	cttcccaagc	cagcgccaca	gtgggagacc	cagatgccaa	gccctcagcg	480
tccccaaggg	atgagcaggt	ccccttctct	caggaggagt	gtccgtctca	gtccccgtgt	540
gagactacag	agacactgca	gagccatgag	aagcccttgc	cccttggtgt	gccggatatg	600
ggcatgaagc	ccagccaagc	tggctggttt	gatcagattg	cagtcaaagt	ggcctga	657

<210> 45

<211> 824

<212> DNA

<213> Artificial Sequence

<220>

<223> artificial cDNA sequence

<400> 45

ggtaccgaat	tgtacgcgta	tggggacttc	ccatatcaat	cagggacttt	ccgctgggga	60
ctttccggtc	tgactcatgc	ttctgactca	tgcttgggtg	acatcatctc	gactagtcgt	120
accttcccgt	aaatccctcc	ccttcccgga	attacacacg	cgtatttccc	agaaaaggaa	180
ctgtagattt	ctaggaattc	aatccttggc	cacgcgttta	caccggaagt	tttccatatt	240
aggaattcct	tccggtttcc	tttctcgagg	ccaccgtggg	tgagcccagc	actcattcat	300
aaaacgcttg	ttataaaagc	agtggctgcg	gcgccttcgt	actccaaccg	catctgcagc	360
gagcaactga	gaagccaagg	atccaggctg	aattcatggg	tctcaacccc	cagctagttg	420
tcaccttgct	cttctttctc	gaatgtacca	ggagccatat	ccacggatgc	gacaaaaatc	480
acttgagaga	gatcatcggc	atthttgaacg	aggtcacagg	agaaggagcg	ccatgcacgg	540
agatggatgt	gccaaacgtc	ctcacagcaa	cgaagaacac	cacagagagt	gagctcgtct	600
gtagggcttc	caaggtgctt	cgcataattht	atthtaaaaca	tgggaaaact	ccatgcttga	660
agaagaactc	tagtgttctc	atggagctgc	agagactctt	tggggcttht	cgatgcctgg	720
attcatcgat	aagctgcacc	atgaatgagt	ccaagtccac	atcactgaaa	gacttcctgg	780
aaagcctaaa	gagcatcatg	caaattggatt	actcgtagtc	taga		824

<210> 46

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Oligonucleotide sequence ZC28835

<400> 46
taatacgact cactataggg aggcccccaa ggtctcagct ccagtat 47

<210> 47
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide sequence ZC 28836

<400> 47
gcaccggtgg cctcctgagg gggcact 27

<210> 48
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